### R-2248F Project Synopsis

- TIP Project R-2248F is the widening of I-485 (Charlotte Outer Loop) from west of I-77 to SR 1143 (Brown-Grier / Arrowood Road) from a four-lane divided facility to a six-lane divided facility with a 46-foot median. The project is located in Mecklenburg County.
- Planning studies have been completed for the project. The Categorical Exclusion (CE) for R-2248F was approved on April 30, 2004. A copy of the Categorical Exclusion will be made available to the short-listed teams.
- The general Scope of Work consists of the design and construction of an additional 12-foot lane in each direction within the median.

### **Public Involvement Scope of Work:**

• During the project's construction, the Design Build Team must coordinate with the Division 10 Office and the Construction Unit to inform the public of lane closures, construction progress, etc.

## **Design Scope of Work:**

• The Design - Build Team shall assume full responsibility for the preliminary designs provided by the Department. At a minimum, the designs must adhere to the 2001 AASHTO Guidelines, AASHTO Standard Specifications for Highway Bridges, NCDOT Roadway Design Manual, NCDOT Roadway Standard Drawings, NCDOT Structure Design Manual, NCDOT Bridge Policy Manual, NCDOT Structure Design Unit Project Special Provisions, NCDOT Structure Design Unit Standard Drawings, North Carolina Standard Specifications for Highways and Structures, NCDOT Utility Manual-Policies and Procedures for Accommodating Utilities on Highway Rights of way, NCDOT Right of Way Manual, NCDENR Public Water Supply, NCDOT Utility Manual, Manual on Uniform Traffic Control Devises (MUTCD), NC Supplement to the MUTCD, NCDENR Division of Water Quality - Title 15A, NCDENR Public Water Supply and Guidelines from the NCDOT Design Units. The appropriate NCDOT Unit must review all designs.

### Roadway Design Scope of Work:

- The Design Build Team will design the widening of I-485 from a four-lane divided facility to a six-lane divided facility with a 46-foot median. The additional 12-foot lanes shall be constructed within the median. The proposed roadway shall be designed to meet a 70-mph design speed for rolling freeway facilities.
- The approved design criteria will be provided to the short-listed teams and must be adhered to.

• No design exception is anticipated. However, the Design – Build Team will be responsible for the development and approval of all design exceptions.

# **Structure Design Scope Work:**

• Structure design and / or construction is not anticipated.

#### **Hydraulic Design Scope of Work:**

- The Design Build Team will be responsible for the hydraulic design.
- Permit / permit modification will not be required.

# **Pavement Design Scope of Work:**

- Final pavement designs will be provided. The Design Build Team will be responsible for all temporary pavement designs. If necessary, the Design Build Team will be responsible for the evaluation of the existing shoulders regarding their suitability for carrying traffic during construction.
- For the mainline, the Design Build Team will be responsible for the design and construction of continuous shoulder drains and outlets along the median.

#### **Location Surveys Scope of Work:**

- Full electronic surveys have been completed and will be provided to the short-listed Design - Build Teams. Supplemental surveys will be the responsibility of the Design -Build Team.
- Existing utilities have been located and will be included with the survey data. All supplemental SUE work will be the responsibility of the Design Build Team.
- All structure surveys will be the responsibility of the Design Build Team.

### **Geotechnical Investigations Scope of Work:**

- Geotechnical investigations for the roadway will be provided to the short-listed teams. The Design Build Team will be responsible for all recommendations, as well as structural and supplemental roadway investigations.
- The Design Build Team will be responsible for all geotechnical investigations and testing required for cement and lime stabilization of sub-grade soils.

#### ITS Scope of Work:

• The Design – Build Team will be responsible for the design and construction of the ITS facilities.

### **Erosion Control Scope of Work:**

- All erosion control designs will be the responsibility of the Design Build Team.
- The Design Build Team must have an erosion control inspector on the project at all times during construction.

### **Signing Scope of Work:**

• Signing Plans will be the responsibility of the Design - Build Team.

#### **Traffic Control and Pavement Marking Scope of Work:**

- A list of parameters such as lane closures, time restrictions, pavement marking and general TCP guidelines will be provided to the short-listed teams.
- Traffic Control Plans will be the responsibility of the Design Build Team.
- Temporary and Final Pavement Marking Plans will be the responsibility of the Design Build Team.

#### **Right of Way Acquisition Scope of Work:**

- The proposed widening should not require right of way acquisition. However, should the Design Build Team's design require additional right of way and / or easement, right of way acquisition will be the responsibility of the Design Build Team.
- Upon discovery of underground storage tanks within the existing / proposed right of way, the Design - Build Team will be responsible for coordination with the Geotechnical Unit for their removal.

## R/W Utilities, Conflicts and / or Construction Scope of Work:

- The Design Build Team will be responsible for all utility conflicts / relocations and utility construction plans. Utility coordination shall include any and all utility agreements when applicable.
- All supplemental SUE work will be the responsibility of the Design Build Team.
- The Design Build Team will be responsible for coordinating the construction / relocation of private utilities with the appropriate owners. The Design –Build Team

shall be responsible for non-betterment utility relocation costs when the utility company has prior rights of way / compensable interest. The utility company shall be responsible for the relocation costs if they cannot furnish evidence of prior rights of way or a compensable interest in their facilities.

# **CEI Scope of Work:**

• The Design - Build Team shall be responsible for all CEI work.

#### **Construction:**

• The Design - Build Team shall be responsible for the construction of the roadway and structural elements required to widen I-485 to a six-lane facility. The latest estimated construction cost for the project is \$15,200,000.